III. CLAIM AMENDMENTS

1.   (Currently Amended) A method for controlling a cell change in a service network, in which method

- a terminal performs neighbour cell measurements for a cell change,

- the network makes a cell change decision based on said measurement results, network load and the terminal's service need, and

- the network sends to the terminal a cell change order instructing the terminal to switch over to a new cell ,

- characterized in that if the new serving cell assigned to the terminal in the cell change order is a cell, the timing information of which is unknown to the terminal, after neighbour cell measurements, the cell change will not take place, but the terminal will send to the base station a cell change failure message instead of a cell change attempt.

2.   (Original) The method according to claim 1, characterized in that the service network is a GPRS network.

3.   (Cancelled)

4. (Original) The method according to claim 2, characterized in that to the cell change order PACKET_CELL_CHANGE_ORDER (43) an information element has been added which gives the terminal a right not to perform the cell change if the terminal does not know the timing information of the new cell assigned to it.

5. (Original) The method according to claim 4, characterized in that said information enabling the cancellation of the execution of the cell change order is transmitted in a signalling message to the terminal in a GPRS service network at least partly in the form of the following information elements:

<Packet Cell Change Order message content> ::=

           <PAGE_MODE : bit(2)

           {

           {0<Global TFI :Global TFI IE>>

           |10<TLLI:bit (32)>}

           {0-Message escape

              { IMMEDIATE_REL :bit>

              <ARFCN: bit (10)

              <BSIC: bit (6)

         <NC Measurement Parameters :<NC measurement Parameters struct>>

      Packet_cell_change_order_options: bit (3)> <padding bits>

      |<Non-distribution part error: bit(*) = <no string>>)

|<message escape: 1 bit(*) = <no string>>)

|Address information part error: bit(*) = <no string>>)

|<Distribution part error: bit(*) = <no string>>;

6. (Original) The method according to claim 5, characterized in that the bit combination "0-0-0"of the "Packet_cell_change_order_options" information element in said signalling message means that the terminal shall carry out the cell change order, and bit combinations "0-0-1", "0-1-0", "0-1-1", "1-0-0" and "1-1-1" allow the terminal not to carry out the cell change order if the terminal does not know the timing information of the new cell.

7. (Original) The method according to claim 2, characterized in that the message (47) sent by the terminal to the base station, indicating the non-execution of the cell change, is a "Packet_cell_change_failure" message.

8. (Original) The method according to claim 7, characterized in that said information sent by the terminal to the base station is transmitted to the base station in a GPRS service network in a signalling message (47) at least partly in the form of the following information elements:

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<Packet Cell Change Failure message content> ::=

     <TLLI:bit (32)>}

     <ARFCN: bit (10)

     <BSIC: bit (6)

     <Neighbour_cell_reporting: <neighbour cell reporting struct>

     <spare padding>
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9.   (Original) The method according to claim 8, characterized in that the "Neighbour_cell_reporting" information element in said signalling message comprises information about the number of neighbour cells the timing data of which are included in the measurement report as well as the neighbour cell measurement data in question.

10.   (Original) The method according to claim 9, characterized in that the measurement report comprises information only about those neighbour cells the timing information of which has been learned from the neighbour cell measurements performed by the terminal.

11.   (Original) The method according to claim 10, characterized in that in the measurement report sent by the terminal the neighbour cell measurement data include at least the   ARFCN information representing the centre frequencies of the neighbour cells' BCCH channels.

12. (Original) The method according to claim 11, characterized in that the ARFCN information is replaced by an indexing system known in the cellular system.

13. (Previously Presented) The method according to claim 11, characterized in that the neighbour cell measurement data further include the neighbour cell identity information (BSIC).

14. (Original) The method according to claim 13, characterized in that the terminal arranges the neighbour cell measurement data in the measurement report in the order according to the reception level (RXLEV) measured by it for each neighbour cell.

15. (Original) The method according to claim 14, characterized in that the neighbour cell measurement data included in the measurement report further comprise the reception levels (RXLEV) in question.

16. (Currently Amended) A base station ~~(BS, 551)~~ in a cellular radio system, comprising means for providing a service (GSM, GPRS) and means for receiving signalling messages from a

    terminal ~~(MS, 500)~~ as well as means for generating signalling messages and sending them to terminals, characterized in that it further comprises means for receiving and processing information obtained from a

terminal, which information is arranged so as to convey to the base station the data of those neighbour cells known to the terminal, wherein a cell known to the terminal is a cell for which the timing information of which is known to the terminal.

17. (Original) The base station according to claim 16, characterized in that said service is the GPRS data packet transmission service.

18. (Original) The base station according to claim 16, characterized in that said signalling messages are signalling messages of the GPRS data packet transmission service.

19. (Currently Amended) A terminal ~~(MS, 500)~~ in a cellular radio system, equipped with means for connecting to a certain service (GSM, GPRS) and comprising means for receiving signalling messages from base stations ~~(BS, 551)~~ and means for performing cell specific measurements in order to find a suitable serving cell, characterized in that it is further equipped with means for determining the timing information of neighbour cells and means for sending a cell change failure message to the base station of the current cell instead of trying a cell change, in the case that the timing information of the base station of the new cell assigned to the terminal in a cell change order by the serving base station is unknown to the terminal.

20. (Original) The terminal according to claim 19, characterized in that said certain service is the GPRS data packet transmission service.

21. (Original) The terminal according to claim 19, characterized in that said signalling messages are signalling messages of the GPRS data packet transmission service.

22. (Currently Amended) A cellular radio system comprising base stations ~~(BS, 551)~~ and associated

- cells ~~(1-11)~~ and terminals ~~(MS, 500)~~, in which system

- the base stations are equipped with means for conveying signalling messages between a base station and a terminal, and

- the terminals are adapted so as to operate at a certain service level (GSM, GPRS) and to convey signalling messages between a terminal and a base station, characterized in that it further comprises information, which is known to a terminal, about a set of neighbour cells of said terminal, the timing information of the base stations of which neighbour cells the terminal has determined, whereby said system is adapted so as to convey, after a cell change order addressed to the terminal, a cell change failure message from the terminal to the base station if the timing information of a base station of a new cell assigned to the terminal in the cell change order by the serving base

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station is unknown to the terminal <u>instead of trying a cell</u>

<u>change</u>.

23. (Original) The cellular radio system according to claim 22, characterized in that said certain service is the GPRS data packet transmission service.

24. (Original) The cellular radio system according to claim 22, characterized in that said signalling messages are signalling messages of the GPRS data packet transmission service.

25. (Previously Presented) The method according to claim 1 where a cell change failure message includes a cause of the cell change failure.

26. (Previously Presented) The method according to claim 1 where a cell change failure message includes neighbour cell information.

27. (Previously Presented) The terminal according to claim 19, characterized that it is further equipped with means for sending neighbour information together with the cell change failure message.

28. (Previously Presented) The cellular radio system according to claim 22, characterized in that said cell change failure message

includes for the purpose of selecting a new serving cell a set of neighbour cells determined by the terminal.

29. (New) A terminal in a cellular radio system, equipped with transmitter for a connecting to a certain service (GSM, GPRS) and comprising a receiver for receiving signaling messages from base stations and a reception block for performing cell specific measurements in order to find a suitable serving cell, characterized in that it is further equipped with a control unit for determining the timing information of neighbour cells and a transmission block for sending a cell change failure message to the base station of the current cell instead of trying a cell change, in the case that the timing information of the base station of the new cell assigned to the terminal in a cell change order by the serving base station is unknown to the terminal.

30. (New) The method of claim 1 further comprising that the cell change failure message sent by the terminal includes information on one or more neighbouring cells for which the terminal already has timing information.

31. (New) A method for controlling a cell change comprising:

   a terminal receiving a cell change order from the network;

   the terminal determining whether timing information related to a new cell identified in the cell change order is available in the terminal; and

if the timing information for the new cell is available, the terminal makes a cell change attempt; and

if the timing information for the new cell is not available, the terminal sends a packet cell change failure message to the network that includes information on neighbouring cells for which the terminal already has timing information, wherein the network send another new cell change order based on the information included in the packet cell change failure message.

32. (New) The method of claim 31 further comprising the terminal:

receiving the another new cell change order;

determining if timing information is available in the terminal for a cell identified in the another new cell change order;

if information is available, attempting a cell change; and

testing the cell change attempt.